



U.S. ENVIRONMENTAL PROTECTION AGENCY
 Office of Pesticide Programs
 Registration Division (7505T)
 1200 Pennsylvania Ave., N.W.
 Washington, D.C. 20460

EPA Reg. Number:
 5481-686

Date of Issuance:
 2/13/24

NOTICE OF PESTICIDE:
 Registration
 Reregistration
 (under FIFRA, as amended)

Term of Issuance:
 Unconditional

Name of Pesticide Product:
 Zalo Herbicide

Name and Address of Registrant (include ZIP Code):

AMVAC Chemical Corporation
 4695 MacArthur Court, Suite #1200
 Newport Beach, CA 92660

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. You have 18 months from the date of registration to provide these data.

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Signature of Approving Official:

Lydia Crawford, Acting Product Manager 24
 Fungicide & Herbicide Branch, Registration Division (7505T)

Date:

2/13/24

EPA Form 8570-6

3. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 5481-686."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

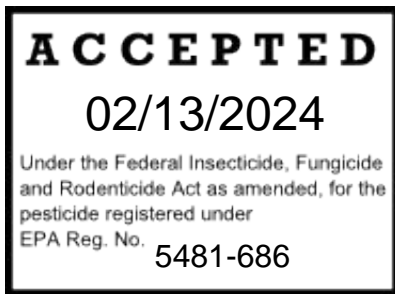
If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 10/13/2022

If you have any questions, please contact Francisco Llarena-Arias at 202-566-2816 or at llarena-arias.francisco@epa.gov.

Enclosure



Quizalofop-P-ethyl	Group	1	Herbicide
Glufosinate-ammonium	Group	10	Herbicide

ZALO HERBICIDE

For nonselective control of emerged grass and broadleaf weeds in glufosinate-resistant canola, cotton and soybeans. For use on pome fruit (crop group 11-10) and stone fruit (crop group 12-12).

Active Ingredients:

Quizalofop-P-ethyl 2.4%
 Glufosinate-ammonium 24.6%

Inert ingredients:..... 73.0%

Total: 100.00%

1 gallon of ZALO HERBICIDE contains 0.23 pounds of QUIZALOFOP-P-ETHYL ester and 2.29 pounds of GLUFOSINATE-AMMONIUM.

This product is a soluble liquid formulation.
 Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN/MANTENER FUERA DEL ALCANCE DE LOS NIÑOS

DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
 (If you do not understand this label, find someone to explain it to you in detail).

FIRST AID	
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • DO NOT give any liquid to the person. • DO NOT induce vomiting unless told to do so by a poison control center or doctor. • DO NOT give anything by mouth to an unconscious person.
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 - 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage. Contains petroleum distillate. Vomiting may cause aspiration pneumonia.	
EMERGENCY INFORMATION	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. FOR THE FOLLOWING EMERGENCIES, PHONE 24 HOURS A DAY: For Medical Emergencies phone:.....1-888-681-4261 For Transportation Emergencies, including spill, leak or fire, phone: CHEMTREC®1-800-424-9300 For Product Use Information phone: AMVAC®1-888-462-6822	

[See booklet for additional Precautionary Statements and Directions for Use.]

EPA Reg. No. 5481-xxx
EPA Est. No: _____

Net Contents: _____



[Manufactured For]
AMVAC Chemical Corporation
4695 MacArthur Court, Suite 1200
Newport Beach, CA 92660 U.S.A.
1-888-462-6822

[Made in _____]

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

DANGER/PELIGRO

Corrosive. Causes irreversible eye damage. **DO NOT** get in eyes or on clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Mixers, Loaders, Applicators and other handlers must wear:

- Protective eyewear (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton® ≥14 mils.
- Shoes plus socks

User Safety Requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Engineering Controls Statement

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Mixer/loaders supporting aerial applications to canola, soybean, and cotton must use closed mixing/loading systems.

Environmental Hazards

DO NOT apply directly to water or to areas where surface water is present. **DO NOT** apply to intertidal areas below the mean high-water mark. **DO NOT** contaminate water by cleaning of equipment or disposal of equipment wash waters or rinsate.

This product is moderately toxic to bees on a chronic basis, and may cause chronic risk to pollinators or other terrestrial invertebrates. **DO NOT** apply this product to blooming vegetation or if bees or other pollinating insects are visiting the treatment area.

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift and runoff.

This product is toxic to fish and invertebrates and must be used strictly in accordance with the drift and runoff precautions on this label in order to minimize off-site exposures.

This product may contaminate water through drift of spray in wind. This product may have a potential to runoff to surface water or adjacent land for several months or more after application. Where possible use methods which reduce soil erosion including no-till, limited till or contour plowing; these methods also reduce pesticide runoff. Poorly drained soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level well maintained vegetative buffer strip between areas to which the product is applied and surface water features including along rivers, creeks, streams, wetlands, etc. or on the downhill side of fields where runoff could occur is recommended to minimize water runoff and will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion practices will reduce this product's contribution to surface water contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

DO NOT use this product until you have read the entire label.

DO NOT apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in the area during application. Consult the agency responsible for pesticide regulation for any requirements specific to your State or Tribe.

Refer to Crop Specific Use Directions Table 4 for crops excluded for use of ZALO HERBICIDE in New York State and/or it's counties.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours, with the following exceptions:

- **Canola and soybean scouting- REI of 4 days.**
- **DO NOT move irrigation pipe within 7 days of an application to any crop.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:

- Protective eyewear (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate or Viton ≥ 14 mils.
- Shoes plus socks

All applicable directions, restrictions, precautions and Limited Warranty and Disclaimer are to be followed. This labeling must be in the user's possession during application.

IMPORTANT CROP SAFETY INFORMATION

READ BEFORE USING THIS PRODUCT

Postemergence applications of ZALO HERBICIDE may be made only to canola, cotton, and soybean resistant to the active ingredients in this product. To the extent consistent with applicable law AMVAC does not warrant the use of this product on canola, cotton, and soybean other than those designated as glufosinate-resistant to safely withstand the application of ZALO HERBICIDE.

The basis of selectivity of ZALO HERBICIDE in broadleaf crops, including canola, cotton, and soybean is the presence of a gene which results in canola, cotton, and soybean plants resistant to glufosinate, one of the active ingredients in ZALO HERBICIDE. Crops not containing this gene conferring tolerance will not be resistant to ZALO HERBICIDE and severe crop injury and/or death may occur. **DO NOT** allow spray to contact foliage or green tissue of desirable vegetation other than crops resistant to the active ingredients in this product.

Rate Conversion Table

Rate of ZALO HERBICIDE (fl oz/A)	Active Ingredient (lb ai/A)	
	Quizalofop-P-ethyl	Glufosinate-ammonium
22	0.040	0.394
29	0.052	0.519
32	0.058	0.573
43	0.077	0.769
46	0.083	0.823
58	0.104	1.037
69	0.124	1.234
92	0.165	1.646

I. PRODUCT INFORMATION

ZALO HERBICIDE contains both a lipophilic, systemic herbicide (quizalofop-P-ethyl) and a water-soluble, nonselective, contact herbicide (glufosinate) that controls or suppresses emerged broadleaf and grass weeds in glufosinate-resistant canola, cotton, and soybean.

ZALO HERBICIDE is absorbed by plant foliage and controls weeds by ACC-ase enzyme inhibition (Group 1) and glutamine biosynthesis inhibition (Group 10). ZALO HERBICIDE is foliar active with no residual soil activity. Weeds that emerge after application will not be controlled. Apply to small, actively growing weeds before weeds exceed the maximum stem height or vine length listed for broadleaf weeds listed in Table 1 and grass weeds listed in Table 2.

ZALO HERBICIDE requires uniform thorough spray coverage. Applications made in warm temperatures, high humidity, bright sunlight between dawn and 2 hours before sunset will provide optimum activity. Weed control may be reduced if application is made when heavy dew and mist/rain are present; or when weeds are under stress due to environmental conditions including drought, extreme heat, cold temperatures, or extended periods of cloudiness. Small grass and broadleaf plants may be completely desiccated within 2 to 4 days after application under good growing conditions. Large grass and broadleaf plants may not be completely desiccated and may resume growth after application. Total herbicidal activity on broadleaf weeds will be less than 7 days after application but may take up to 14 days after application for grass weeds.

Susceptible Non-target Plants

DO NOT apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. **DO NOT** allow contact of herbicide with foliage, green stems, exposed non-woody roots of crops, desirable plants; including trees, because severe injury or destruction may result. Small amounts of spray drift that may not be visible may injure susceptible plants. Most grass crops, when not resistant to quizalofop-P-ethyl, such as wheat, barley, rye, oat, sorghum, rice, and corn are highly susceptible to ZALO HERBICIDE. Before making an application, please refer to your state's susceptible crop registry (if available) to identify any commercial specialty or certified organic crops that may be located nearby.

Rainfall or overhead irrigation within 4 hours after application may result in reduced weed control.

Table 1. Emerged Broadleaf Weed Control (C) or Partial Control (PC) with ZALO HERBICIDE and Maximum Weed Size at Application (Including ALS, Auxin-, Glyphosate-, HPPD-, PPO- and Triazine-Resistant Biotypes)

Broadleaf Weeds		22 fl oz/A Product	32 fl oz/A Product	43 fl oz/A Product
		Up to 3 inches tall	Up to 3 inches tall	Up to 3 inches tall
Amaranth, Palmer ¹	<i>Amaranthus palmeri</i>	PC	C	C
Amaranth, Powell	<i>Amaranthus powellii</i>	C	C	C
Anoda, spurred	<i>Anoda cristata</i>	C	C	C
Bedstraw, catchweed (cleavers)	<i>Galium aparine</i>	C	C	C
Beggarweed, Florida	<i>Desmodium tortuosum</i>	C	C	C
Blueweed, Texas	<i>Helianthus ciliaris</i>	C	C	C
Buckwheat, wild	<i>Fallopia convolvulus</i>	C	C	C
Buffalobur	<i>Solanum rostratum</i>	C	C	C
Burcucumber	<i>Sicyos angulatus</i>	C	C	C
Canola, volunteer ²	<i>Brassica</i> sp.	C	C	C
Carpetweed	<i>Mollugo verticillata</i>	C	C	C
Chickweed, common	<i>Stellaria media</i>	C	C	C
Cocklebur, common	<i>Xanthium strumarium</i>	C	C	C
Copperleaf, hophornbeam	<i>Acalypha ostryifolia</i>	C	C	C
Cotton, volunteer ²	<i>Gossypium</i> spp.	C	C	C
Croton, tropic	<i>Croton glandulosus</i>	C	C	C
Croton, woolly	<i>Croton capitatus</i>	C	C	C
Devil's-claw	<i>Proboscidea louisianica</i>	C	C	C
Eclipta	<i>Eclipta alba</i>	C	C	C
Fleabane, annual	<i>Erigeron annuus</i>	C	C	C

Galinsoga, hairy	<i>Galinsoga ciliata</i>	C	C	C
Galinsoga, small flower	<i>Galinsoga parviflora</i>	C	C	C
Geranium, cutleaf	<i>Geranium dissectum</i>	C	C	C
Groundcherry, cutleaf	<i>Physalis angulata</i>	C	C	C
Hempnettle	<i>Galeopsis</i> spp.	C	C	C
Horsenettle, Carolina ³	<i>Solanum carolinense</i>	C	C	C
Jimsonweed	<i>Datura stramonium</i>	C	C	C
Knotweed	<i>Polygonum</i> spp.	C	C	C
Kochia	<i>Kochia scoparia</i>	C	C	C
Ladysthumb	<i>Polygonum persicaria</i>	C	C	C
Lambsquarters, common	<i>Chenopodium album</i>	C	C	C
Mallow, common	<i>Malva</i> spp.	C	C	C
Mallow, Venice	<i>Hibiscus trionum</i>	C	C	C
Marestail ⁴ (horseweed)	<i>Erigeron canadensis</i>	PC	C	C
Marshelder, annual	<i>Iva annua</i>	C	C	C
Medic, black	<i>Medicago lupulina</i>	C	C	C
Morningglory, annual	<i>Ipomoea</i> spp.	C	C	C
Mustard, wild	<i>Sinapis arvensis</i>	C	C	C
Nightshade (annual)	<i>Solanum</i> spp.	C	C	C
Pennycress, Field (Stinkweed)	<i>Thlaspi arvense</i>	C	C	C
Pigweed, prostrate	<i>Amaranthus blitoides</i>	C	C	C
Pigweed, redroot	<i>Amaranthus retroflexus</i>	C	C	C
Pigweed, smooth	<i>Amaranthus hybridus</i>	C	C	C
Pigweed, spiny	<i>Amaranthus spinosus</i>	C	C	C
Pigweed, tumble	<i>Amaranthus album</i>	C	C	C
Puncturevine	<i>Tribulus terrestris</i>	C	C	C
Purslane, common	<i>Portulaca oleracea</i>	C	C	C
Pusley, Florida	<i>Richardia scabra</i>	C	C	C
Ragweed, common	<i>Ambrosia artemisiifolia</i>	C	C	C
Ragweed, giant	<i>Ambrosia trifida</i>	C	C	C
Senna, coffee	<i>Senna occidentalis</i>	C	C	C
Sesbania, hemp	<i>Sesbania herbacea</i>	C	C	C
Shepherd's purse	<i>Capsella bursa-pastoris</i>	C	C	C
Sicklepod (java bean)	<i>Senna obtusifolia</i>	C	C	C
Sida, prickly (teaweed)	<i>Sida spinosa</i>	C	C	C
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	C	C	C
Smellmelon	<i>Cucumis melo</i>	C	C	C
Sowthistle, annual	<i>Sonchus oleraceus</i>	C	C	C
Soybean, volunteer ²	<i>Glycine max</i>	PC	C	C
Spurge, prostrate	<i>Euphorbia prostrata</i>	C	C	C
Spurge, spotted	<i>Euphorbia maculata</i>	C	C	C
Starbur, bristly	<i>Acanthospermum hispidum</i>	C	C	C
Sunflower (annual)	<i>Helianthus</i> spp.	C	C	C
Thistle, Russian ³	<i>Salsola iberica</i>	C	C	C
Velvetleaf	<i>Abutilon theophrasti</i>	C	C	C
Waterhemp, common ¹	<i>Amaranthus rudis</i>	PC	C	C
Waterhemp, tall ¹	<i>Amaranthus tuberculatus</i>	PC	C	C

¹ Will not control glufosinate resistant weed biotypes.

² Will not control volunteer glufosinate-resistant (LibertyLink[®]) crops from the previous season.

³ Requires sequential application for control but **DO NOT** exceed restrictions in Table 4.

⁴ Apply ZALO HERBICIDE on 6-inch or smaller marestail for optimum control.

Table 2. Emerged Grass Weed Control (C) or Partially Control (PC) with ZALO HERBICIDE and Maximum Weed Size at Application (Including ACC-ase Resistant Biotypes)

Grass Weeds ¹		22 fl oz/A Product	32 fl oz/A Product	43 fl oz/A Product
		≤ 10 inches tall	≤ 20 inches in tall	≤ 30 inches tall
Corn, volunteer ²	<i>Zea mays</i>	C	C	C
Johnsongrass, Rhizome	<i>Sorghum halepense</i>	PC	PC	C
Sorghum, volunteer ²	<i>Sorghum bicolor</i>	C	C	C
		≤ 6 inches tall	≤ 10 inches tall	≤ 12 inches tall
Quackgrass	<i>Agropyron repens</i>	PC	PC	C
Shattercane	<i>Sorghum bicolor</i>	C	C	C
		≤ 3 inches tall	≤ 4 inches tall	≤ 5 inches tall
Barley, volunteer	<i>Hordeum vulgare</i>	PC	C	C
Barnyardgrass ³	<i>Echinochloa crus-galli</i>	C	C	C
Bermudagrass ³	<i>Cynodon dactylon</i>	PC	PC	PC
Bluegrass, annual	<i>Poa annua</i>	C	C	C
Brome, downy	<i>Bromus tectorum</i>	PC	PC	C
Crabgrass, large ³	<i>Digitaria sanguinalis</i>	C	C	C
Crabgrass, smooth ³	<i>Digitaria ischaemum</i>	C	C	C
Crowfootgrass	<i>Dactyloctenium aegyptium</i>	PC	C	C
Cupgrass, woolly ³	<i>Eriochloa villosa</i>	C	C	PC
Foxtail, bristly	<i>Setaria verticillata</i>	C	C	C
Foxtail, giant	<i>Setaria faberi</i>	C	C	C
Foxtail, green	<i>Setaria viridis</i>	C	C	C
Foxtail, robust purple	<i>Seteria viridis</i>	C	C	C
Foxtail, yellow ³	<i>Setaria pumila</i>	C	C	PC
Goatgrass, jointed	<i>Aegilops cylindrica</i>	PC	PC	C
Goosegrass	<i>Eleusine indica</i>	C	C	C
Itchgrass	<i>Rottboellia exaltata</i>	PC	C	C
Johnsongrass, seedling	<i>Sorghum halepense</i>	C	C	C
Junglerice	<i>Echinochloa colonum</i>	C	C	C
Millet, volunteer/wild proso	<i>Panicum miliaceum</i>	C	C	C
Oat, volunteer	<i>Avena sativa</i>	PC	C	C
Oat, wild ²	<i>Avena fatua</i>	C	C	C
Panicum, fall	<i>Panicum dichotomiflorum</i>	C	C	C
Panicum, Texas ³	<i>Panicum texanum</i>	C	C	C
Rice, red ³	<i>Oryza sativa</i>	C	C	C
Rye, volunteer	<i>Secale cereale</i>	PC	C	C
Ryegrass, Italian ²	<i>Lolium multiflorum</i>	PC	PC	C
Sandbur, field	<i>Cenchrus incertus</i>	PC	C	C
Signalgrass, broadleaf	<i>Brachiaria platyphylla</i>	C	C	C
Sprangletop	<i>Leptochloa filiformis</i>	C	C	C
Stinkgrass	<i>Eragrostis cilianensis</i>	C	C	C
Wheat, volunteer	<i>Triticum aestivum</i>	C	C	C
Windgrass	<i>Bromus mollis</i>	PC	PC	C
Wirestem muhly	<i>Muhlenbergia frondosa</i>	PC	C	C
Witchgrass	<i>Panicum capillare</i>	C	C	C

¹ Greatest control when applied to small, actively growing weeds. Drought at and immediately following application will significantly decrease ZALO HERBICIDE activity. Applying the maximum rate may not kill stressed weeds. Tank mixing with certain broadleaf herbicides may result in reduced grass control (see Section V. Tank Mix Information). To prevent reduced grass control, apply ZALO HERBICIDE either 1 day before or 7 days after certain broadleaf herbicides. **DO NOT** exceed restrictions in Table 4.

² Quazalofop-P-ethyl does not control Group 1 (ACC-ase) resistant grass biotypes or glufosinate- and quazalofop-P-ethyl- resistant volunteer corn.

³ Apply before tiller initiation of grasses. Apply the maximum rate listed. Sequential applications may increase control. Allow a minimum of 7 days after the first application. **DO NOT** exceed restrictions in Table 4.

Quizalofop-P-ethyl	Group	1	Herbicide
Glufosinate-ammonium	Group	10	Herbicide

Weed Resistance Management

Herbicide resistance has become an important management focus to maximize weed control. Weeds have developed resistance to many herbicide modes of action. ZALO HERBICIDE contains both a Group 1 (quizalofop-P-ethyl) and a Group 10 (glufosinate-ammonium) herbicide to reduce selection of herbicide resistance in weeds. Any weed population may contain plants resistant to Group 1 and/or Group 10 herbicides. Resistant plants may dominate weed populations if Group 1 and Group 10 herbicides are used repeatedly in the same fields. It is recommended to follow effective resistance-management strategies.

Suspected Resistance

Indicators of suspected herbicide resistance include (1) failure to control a weed species normally controlled by the herbicide and dose applied; (2) a spreading patch of uncontrolled plants of a particular weed species; and (3) surviving plants mixed with controlled individuals of the same species. Likely resistant weeds are assumed to be present if any of these criteria are met.

Follow as many as possible of the following recommendations to delay herbicide resistance in weeds:

- Rotate the use of ZALO HERBICIDE or other Group 1 and 10 herbicides with herbicides of different groups that control the same weeds.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Users must scout before and after application. Scout field before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present and scout field after application to detect weed escapes or shifts in weed species.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- After applying herbicide, scout fields to determine the effectiveness of herbicides and other weed control cultural or mechanical practices paying particular attention to identify weed profile shift or resistance. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- Apply the maximum specified labeled use rate of this product for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- If resistance is suspected in targeted weed species, treat weed escapes with an herbicide having a mechanism of action other than group 1 or group 10 and/or use non-chemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Any herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Other factors, such as enhanced weed metabolism, may also occur and contribute to weed resistance. Consult your state cooperative extension service, professional consultants, or other qualified authorities for additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.
- Report any incident of non-performance of this product on a targeted weed species or any suspected resistance to your retailer or AMVAC representative or call 1-888-462-6822 (AMVAC Customer Support).

Best Management and Stewardship Practices

Adopt a diversified weed management system for best stewardship of ZALO HERBICIDE and for optimum weed control. Best management practices that diversify weed management include using herbicide treatments with multiple modes of action (MOA) that are effective on target weeds. Apply herbicides uniformly using proper application, timing, full use-rates and appropriate spray volumes. Use cultural (e.g., crop rotation) and mechanical (e.g., tillage) weed management tactics. Alternate herbicide-resistant traits and/or use herbicide-resistant trait stacks for more efficient rotation. Correctly identify weeds and know where the weeds are in your fields. Start with clean fields. Use effective tillage or burndown herbicide programs to control emerged weeds prior to planting. Clean equipment to prevent the spread of weed seeds between fields. Use residual herbicides in pre-emergence and early post-emergence applied applications. Scout fields soon after herbicide application to identify escaped weeds, population shifts, and herbicide resistant biotypes. Closely monitor problematic areas with difficult-to-control weeds or dense weed populations. Control weed escapes using spot herbicide applications, rope wicking, cultivation or hand removal of weeds or other techniques to stop weed seed production and accumulation in the soil bank. Stopping weed seed development will decrease weed populations from year to year and prevent major weed shifts.

Environmental Conditions and Biological Activity

Apply ZALO HERBICIDE during favorable growing conditions for optimum crop tolerance and weed control. Crops under environmental stress are more likely to show injury from any herbicide application. Stressed plants treated with ZALO HERBICIDE may show some transient leaf discoloration. These symptoms are temporary and occur rarely. Crop growth is not affected. **DO NOT** apply ZALO HERBICIDE if crop shows injury from prior herbicide applications or environmental stress (drought, excessive rainfall, temperature extremes, etc.).

Cultivation

Avoid disturbing (e.g., cultivation) treated areas for at least 5 days before and 7 days following an application of ZALO HERBICIDE to allow maximum herbicide absorption and weed control. Avoid deep cultivation that will move dormant weed seeds into the upper soil zone where seeds may germinate.

Insecticide Information

ZALO HERBICIDE may be used sequentially with soil insecticides or in combination with or sequentially with foliar applied insecticides registered for use on that crop.

Cleaning Spray Equipment

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of ZALO HERBICIDE as follows:

1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
2. Fill the tank with clean water and 1 gallon of household ammonia* (contains 3% active) for every 100 gallons of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
4. Repeat step 2.
5. Rinse the tank, boom, and hoses with clean water.
6. If only ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) specified on this label or to a fallow area. **DO NOT** exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.

*Equivalent amounts of an alternate-strength ammonia solution or an AMVAC-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or AMVAC representative for a listing of approved cleaners.

II. APPLICATION AND MIXING INSTRUCTIONS

ZALO HERBICIDE applied postemergence controls many annual broadleaf and grass weeds and some perennial grasses in conservation and conventional tillage crop production systems. **DO NOT** apply ZALO HERBICIDE within 30 feet of a native

plant community. To the extent consistent with applicable law, the applicator is responsible for any loss or damage that results from spraying ZALO HERBICIDE in a manner other than specified in this label. In addition, applicator must follow all applicable state and local regulations and ordinances regarding spraying.

Spray Coverage

Glufosinate, a contact herbicide, requires thorough uniform coverage of all vegetation to achieve optimum and consistent control of emerged weeds. Dense leaf canopies can prevent adequate spray coverage resulting in poor weed control. Quisalofofop-P-ethyl, a systemic herbicide, does not require as thorough coverage. The activity of both active ingredients is optimized when using spray nozzles that produce medium (M) to coarse size (C) droplets (follow the ASABE standards 572.1 shown under spray drift management below). Applying ZALO HERBICIDE with nozzles that produce very coarse (VC), extremely coarse (XC), or ultra coarse (UC) spray droplets can result in at least a 30% reduction in weed control. **DO NOT** use flood jet nozzles, controlled droplet application equipment, or air-assisted spray equipment.

Application Methods and Equipment

Aerial Application

ZALO HERBICIDE can be applied aerially using a minimum of 10 GPA. See the Spray Drift Management section of this label for additional information on proper application of ZALO HERBICIDE.

Ground Application

Apply ZALO HERBICIDE with properly calibrated ground equipment using a minimum of 15 or more gallons of water per acre (GPA). A spray volume of 20 GPA is preferred. Use higher water volumes when treating larger weeds and/or dense weed infestations. ZALO HERBICIDE applications can be made with drop nozzles if the crop canopy prevents adequate weed coverage when using broadcast applications methods. Apply at ground speed of less than 15 mph to attain adequate coverage.

After using ZALO HERBICIDE, thoroughly clean spray equipment. See the **Cleaning Spray Equipment** section of this label for instructions.

SPRAY DRIFT MANAGEMENT

SPRAY DRIFT AERIAL APPLICATIONS

- The spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices.
- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- **DO NOT** release spray at a height greater than 10 ft above the ground or crop canopy, unless a greater application height is necessary for pilot safety.
- Select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.
- Applicators must use ½ swath displacement upwind of the downwind edge of the field.
- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT GROUND APPLICATIONS

- Spray at the appropriate boom height based on nozzle selection and nozzle spacing, but **DO NOT** exceed a boom height of 24 inches above target pest or crop canopy.
- Set boom to lowest effective height over the target pest or crop canopy based on equipment manufacturer's directions.
- Automated boom height controllers are recommended with large booms to better maintain optimum nozzle to canopy height. Excessive boom height will increase the potential for spray drift.
- Select nozzle and pressure that deliver medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.

- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- **DO NOT** apply during temperature inversions.

SPRAY DRIFT ADVISORIES

1. **Pollinator Advisory** - This product contains herbicides. Follow all label directions and precautions to minimize potential off-target exposure in order to prevent effects to non-target plants adjacent to the treated site which may serve as habitat or forage for pollinators.
2. **Spray Drift Management** - The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See **Wind, Temperature and Humidity**, and **Temperature Inversions** sections of this label.

Techniques for Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles.

Controlling Droplet Size – Aircraft:

- **Number of Nozzles** - Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations. AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.
- **Nozzle Type** - Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** - Longer booms increase drift potential. Therefore, a shorter boom length is recommended.
- **Application Height** - Application more than 10 ft above the canopy increases the potential for spray drift.

Boom Height. Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

Drift Reduction Technology (DRT). The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs should result in significantly less pesticide from spray applications drifting and being deposited in areas not targeted by those applications, compared to spray technologies that do not meet the minimum DRT standard. EPA-verified drift reduction technologies (DRTs) and their ratings will be added to the following webpage as they become available:

<https://www.epa.gov/reducing-pesticide-drift>

WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS. **Note:** Local terrain can influence wind patterns. Every applicator needs to be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions restrict vertical air mixing which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

Agriculturally approved drift-reducing additives may also be used in accordance with product labels.

III. ADDITIVES

Postemergence applications of ZALO HERBICIDE require the addition of an adjuvant and a nitrogen fertilizer source to achieve optimum weed control. When using an adjuvant with this product, selecting an adjuvant that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program is advised.

ADJUVANTS: Use petroleum oil concentrate (COC) adjuvants at 1% v/v (1 gallon/100 gallons of water). Use nonionic surfactants (NIS) with at least 90% ai at 0.25 to 0.5% v/v. Use MSO (methylated seed oil) adjuvants at 1% v/v or HSOC (high surfactant oil concentrate) adjuvants at 0.5% v/v. NIS, MSO, and HSOC adjuvants may not be more effective than COC adjuvants. For adjuvant use when tank-mixing with other herbicides refer to Section V. Tank Mix Information.

AND

NITROGEN FERTILIZER SOURCE: Always add spray grade ammonium sulfate (AMS) at 3 lbs/A. A liquid AMS product which provides an equivalent rate of AMS per acre may be used. Commercial liquid solutions of AMS contain approximately 3.4 lbs of AMS per gallon.

IV. MIXING ORDER INSTRUCTIONS

ZALO HERBICIDE is formulated to mix readily in water. Prior to adding ZALO HERBICIDE to the spray tank, ensure that the spray tank is thoroughly clean, particularly if an herbicide with the potential to injure target crops was previously used. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Following are mixing order guidelines for ZALO HERBICIDE either alone or with other components, including spray adjuvants:

WATER:

1. Fill the spray tank ½ to ¾ full with clean water.
2. Add ammonium sulfate (AMS) to the spray tank.
3. Add the required amount of ZALO HERBICIDE to the spray tank while agitating.
4. After ZALO HERBICIDE has visibly dispersed, continue agitation and add spray additives while filling the remainder of the tank with water.

TANK-MIX PREPARATION:

When tank mixing ZALO HERBICIDE with specified pesticides, add the other pesticides and other components in the following order, all while agitating:

1. Fill spray tank ½ to ¾ full with clean water and start agitation.
2. Add soluble packet products and thoroughly mix.
3. Add WP (wetable powder), DG (dispersible granule), DF (dry flowable).
4. Add ammonium sulfate (AMS) to the spray tank.
5. Add F (liquid flowable) formulations.
6. Add ZALO HERBICIDE and thoroughly mix.
7. Add EC (emulsifiable concentrate) and liquid products.
8. Add fertilizer and spray adjuvants to the spray tank.
9. Use a silicone based anti-foam agent if foaming occurs.
10. Fill the remainder of the tank with water.
11. Maintain adequate agitation until all contents in the tank are applied.

V. TANK MIX INFORMATION:

ZALO HERBICIDE may be tank mixed with other registered herbicides to broaden weed spectrum and/or provide residual weed control. This includes products to control other registered pests (e.g. insecticides, fungicides, biologicals). It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Read and follow the most restrictive of all applicable restrictions, limitations and directions for use on all products included in any tank mix.

Postemergence herbicides can antagonize the activity of quizalofop-P-ethyl and reduce grass and volunteer corn control. Broadleaf herbicides in Group 2 (e.g., chlorimuron, cloransulam, imazaquin), Group 4 (e.g., 2,4-D, dicamba), Group 6 (e.g., bentazon) and Group 14 (e.g., fomesafen, lactofen) have been documented as antagonistic. To prevent reduced grass control, apply ZALO herbicide either 1 day before or 7 days after broadleaf herbicides. Tank mix directions are for use only in states where the sequential or tank mix product and application site is registered. **Refer to CROP USE DIRECTIONS AND RESTRICTIONS (Section VII) for more details and for specific tank mix restrictions.**

DO NOT use liquid fertilizer as a carrier for postemergence applications of ZALO HERBICIDE.

VI. ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after uniformly applying ZALO HERBICIDE. If ZALO HERBICIDE is tank-mixed with other herbicides, the label replanting restrictions for these herbicides must also be followed.

Table 3. Crop Rotation Intervals for ZALO HERBICIDE

Rotational Crop	Rotational Interval (Minimum rotational crop planting interval from last application)
Canola, cotton, soybean, quizalofop-P-ethyl- resistant corn and sugarbeet.	May be planted any time
Brassica leafy vegetables, leafy vegetables, root and tuber vegetables. Corn, sweet corn, small grains (wheat barley, oat, rye, buckwheat, teosinte, and triticale).	120 days
All other crops	180 days

VII. CROP USE DIRECTIONS AND RESTRICTIONS

Table 4. Application Directions for Specific Crop Use Directions and Restrictions

Crops	Use rate/A (fl oz)	No. of applications /crop year	Preharvest Interval (days)	Maximum rate/acre/crop year fl oz	Application Instructions
Glufosinate-resistant canola	22-29	2	65	58	Apply by ground and aerial application from cotyledon up to 14 days of anticipated bloom.
	<p>Restrictions: DO NOT use in AL, DE, GA, KY, MD, NJ, NC, SC, TN, VA and WV. In the State of New York Only: DO NOT use in Nassau and Suffolk Counties. DO NOT use liquid fertilizer as a carrier for applications of ZALO HERBICIDE. DO NOT graze or feed forage, hay, or straw from treated areas to livestock. DO NOT apply this product through any type of irrigation system. DO NOT contaminate any body of water. DO NOT reapply within 7 days of previous application. DO NOT harvest within 65 days of previous application. DO NOT exceed 2 applications per year. Maximum Single Application: DO NOT apply more than 29 fl oz/A (0.519 lb glufosinate ammonium/A and 0.052 lb quizalofop-p-ethyl/A). Maximum Annual Application: DO NOT apply more than 58 fl oz/A ZALO Herbicide (1.037 lb glufosinate ammonium/A and 0.104 lb quizalofop-p-ethyl/A) per calendar year. DO NOT exceed 1.59 lb glufosinate ammonium/A and 0.124 lb quizalofop-p-ethyl/A per calendar year.</p>				

Crops	Use rate/A (fl oz)	No. of applications /crop year	Preharvest Interval (days)	Maximum rate/acre/crop year fl oz	Application Instructions
Glufosinate-resistant cotton	32-43	2	80	69	Apply by ground and aerial application from emergence up to 14 days of anticipated bloom. Tank mixing with certain broadleaf herbicides may result in reduced grass control. To prevent reduced grass control, apply ZALO HERBICIDE either 1 day before or 7 days after the broadleaf herbicide.
	<p>Restrictions: DO NOT apply to glufosinate-tolerant cotton in Florida, south of Tampa (Florida Route 60), or in Hawaii, except for test plots or breeding nurseries. In the State of New York Only: DO NOT use in Nassau and Suffolk Counties. DO NOT use liquid fertilizer as a carrier for applications of ZALO HERBICIDE. DO NOT feed cottonseed from treated areas to livestock. DO NOT apply this product through any type of irrigation system. DO NOT contaminate any body of water. DO NOT reapply within 10 days of previous application. DO NOT harvest within 80 days of previous application. DO NOT exceed 2 applications per year. DO NOT apply within 14 days of anticipated bloom of crop.</p>				

Crops	Use rate/A (fl oz)	No. of applications /crop year	Preharvest Interval (days)	Maximum rate/acre/ crop year fl oz	Application Instructions
<p>Maximum Single Application: DO NOT apply more than 43 fl oz/A (0.769 lb glufosinate ammonium/A and 0.077 lb quizalofop-p-ethyl/A). Maximum Annual Application: DO NOT apply more than 69 fl oz/A ZALO Herbicide (1.234 lb glufosinate ammonium/A and 0.124 lb quizalofop-p-ethyl/A) per calendar year. DO NOT exceed 1.59 lb glufosinate ammonium/A and 0.124 lb quizalofop-p-ethyl/A per calendar year.</p>					
Glufosinate-resistant soybean	32-43	2	80	69	<p>Apply by ground and aerial application from emergence up to bloom or R1 growth stage.</p> <p>Tank mixing with other broadleaf herbicides will result in reduced grass control. To prevent reduced grass control, apply ZALO HERBICIDE either 1 day before or 7 days after the broadleaf herbicide.</p>
<p>Restrictions: In the State of New York Only: DO NOT use in Nassau and Suffolk Counties. DO NOT use liquid fertilizer as a carrier for applications of ZALO HERBICIDE. DO NOT graze or feed forage, hay, or straw from treated areas to livestock. DO NOT apply this product through any type of irrigation system. DO NOT contaminate any body of water. DO NOT reapply within 10 days of previous application. DO NOT harvest within 80 days of previous application. DO NOT exceed 2 applications per year. Maximum Single Application: DO NOT apply more than 43 fl oz/A (0.769 lb glufosinate ammonium/A and 0.077 lb quizalofop-p-ethyl/A) Maximum Annual Application: DO NOT apply more than 69 fl oz/A ZALO Herbicide (1.234 lb glufosinate ammonium/A and 0.124 lb quizalofop-p-ethyl/A) per calendar year. DO NOT exceed 1.59 lb glufosinate ammonium/A and 0.124 lb quizalofop-p-ethyl/A per calendar year.</p>					
Pome Fruit Group 11-10: apple, azarole, crabapple, loquat, mayhaw, medlar, pear, quince, tejocote, cultivars, varieties and/or hybrids of these. Stone Fruit Group 12-12: apricot, capulin, cherry, jujube, nectarine; peach, plum,	46	2	14	92	<p>Apply as a banded and/or directed postemergence spray or spot spray treatment in pome and stone fruit crops to weeds less than 3 inches tall. Apply ZALO Herbicide as a directed spray in a band extending out a minimum of 3 feet on each side of the row in 10-40 gallons of water/acre.</p> <p>Banded applications should follow the formula below to calculate the amount of herbicide needed for orchard strip spray treatment:</p> <p>(Band width in feet/Row width in feet) x Rate per broadcast acre = Amount of ZALO Herbicide needed</p> <p>For spot or directed-spray applications, use ZALO Herbicide at 1.15 fl oz of product per gallon of spray solution. Use AMS at 1.2 oz/gal spray solution and COC at 1.28 fl oz/gal spray solution.</p> <p>Apply to weeds until wet but prior to runoff. Ensure uniform and complete coverage.</p>

Crops	Use rate/A (fl oz)	No. of applications /crop year	Preharvest Interval (days)	Maximum rate/acre/ crop year fl oz	Application Instructions
prune plum, plumcot, sloe; cultivars, varieties, and/or hybrids of these.	<p>Restrictions: DO NOT use in the state of New York. DO NOT allow herbicide solution, spray, drift or mist to contact green bark, stems, or foliage of trees, vines, and berries as injury may occur. DO NOT apply to suckers. DO NOT apply within 14 days of anticipated bloom of fruit tree crops. DO NOT graze, harvest, and/or feed treated orchard areas cover crops to livestock. DO NOT apply this product through any type of irrigation system. DO NOT contaminate any body of water. DO NOT apply by aerial application. DO NOT reapply within 14 days of previous application for pome fruit. DO NOT reapply within 28 days of previous application for stone fruit. DO NOT harvest within 14 days of previous application. DO NOT exceed 2 applications per year. Maximum Single Application: DO NOT apply more than 46 fl oz/A (0.823 lb glufosinate ammonium/A and 0.083 lb quizalofop-p-ethyl/A) Maximum Annual Application: DO NOT apply more than 92 fl oz/A ZALO Herbicide (1.646 lb glufosinate ammonium/A and 0.165 lb quizalofop-p-ethyl/A) per calendar year. DO NOT exceed 3.0 lb glufosinate ammonium/A per calendar year in stone fruit and 4.5 lb glufosinate ammonium/A per calendar year in pome fruit. DO NOT exceed 0.165 lb quizalofop-p-ethyl/A per calendar year in stone or pome fruit.</p>				

VIII. SEQUENTIAL HERBICIDE COMBINATIONS AND USES

ZALO HERBICIDE can be used in sequential programs following other registered herbicides for the target crop to broaden weed control spectrum and/or provide residual weed control. Unless indicated otherwise in **Section VII. CROP USE DIRECTIONS AND RESTRICTIONS**, multiple ZALO HERBICIDE applications can be made sequentially to control emerged grass and broadleaf weed species.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage, disposal, or cleaning of equipment.

PESTICIDE STORAGE:

Store product in original container only. Store product in a cool, dry place. **DO NOT** store this product under wet conditions. If this product has been stored where freezing temperatures have occurred agitate or mix contents of container well before use. Avoid cross-contamination with other pesticides.

PESTICIDE DISPOSAL:

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Improper disposal of excess pesticide, spray mix, or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label instructions contact state agency responsible for pesticide regulation or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

FOR NONREFILLABLE RIGID PLASTIC 2.5-GALLON CONTAINERS AND OTHER PLASTIC CONTAINERS OF GREATER THAN 1-GALLON BUT EQUAL TO OR LESS THAN 5-GALLON CAPACITY: Nonrefillable plastic container. **DO NOT** reuse or refill this container.

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store

rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer this container for recycling, if available. If recycling is not available dispose of in accordance with federal, state, and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

FOR NONREFILLABLE RIGID PLASTIC 30-GALLON CONTAINERS AND OTHER PLASTIC CONTAINERS OF GREATER THAN 5-GALLON CAPACITY: Nonrefillable plastic container. **DO NOT** reuse or refill this container.

Triple rinse or pressure rinse (or equivalent) this container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Then offer this container for recycling, if available. If recycling is not available, dispose of in accordance with federal, state, and local regulations and procedures which may include puncturing the properly rinsed container and disposing in a sanitary landfill.

FOR PLASTIC REFILLABLE CONTAINERS, EXCEPT TRANSPORT CONTAINERS: Refillable plastic container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose.

Cleaning this container before refilling is the responsibility of the refiller. Cleaning this container before final disposal is the responsibility of the person disposing of the container. To clean this container before final disposal, empty the remaining contents from this container into application equipment or a tank-mix. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer this container for recycling, if available.

FOR ALL TRANSPORT CONTAINERS AS DEFINED IN 40 CFR 156.3: Emptied container retains vapor and product residue. Observe all precautions stated on this label until the container is cleaned, reconditioned, or destroyed. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, and worn-out threads and closures. Clean thoroughly before reuse for transportation of a material of different composition or before retiring this transport vehicle from service.

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label; and (b) that the directions, warnings, and other statements on this label are based upon responsible experts' evaluations of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants and residues on food crops, and upon reports of field experience. Tests have not been made on all varieties of food crops and plants, or in all states or under all conditions. THIS WARRANTY DOES NOT EXTEND TO THE USE OF THIS PRODUCT CONTRARY TO LABEL INSTRUCTIONS, OR UNDER CONDITIONS NOT REASONABLY FORESEEABLE.

THERE ARE NO EXPRESS WARRANTIES OTHER THAN THOSE SET FORTH HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE, TO MAKE ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF QUALITY OR PERFORMANCE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY

RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW BUYER'S EXCLUSIVE REMEDY AND MANUFACTURER'S OR SELLER'S EXCLUSIVE LIABILITY FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED AT THE MANUFACTURER'S OPTION TO REPLACEMENT OF, OR THE REPAYMENT OF THE PURCHASE PRICE FOR, THE QUANTITY OF PRODUCT WITH RESPECT TO WHICH DAMAGES ARE CLAIMED. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW MANUFACTURER OR SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

AMVAC offers this product, and Buyer accepts it, subject to the foregoing Limited Warranty which may be varied only by agreement in writing signed by an authorized representative of AMVAC.

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